

Abstracts

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substantial reductions in doctor demand and substantial societal cost savings. Since prior research suggests no adverse impact on adherence to drugs and follow-up of these innovations, serious consideration should be given to policy changes to adopt substituting for doctor for routine HIV follow-up care.

PIN10

COMPARATIVE (POSACONAZOLE VS. OTHER SYSTEMIC ANTIFUNGALS) ALL-CAUSE MORTALITY AND COST ANALYSIS IN PATIENTS WITH REFRACTORY INVASIVE ASPERGILLOSIS

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OBJECTIVE: To evaluate all-cause mortality and cost of treatment in patients with refractory invasive aspergillosis (rIA) treated with either posaconazole or other systemic anti-fungal (SAF) therapies. **METHODS:** All-cause mortality and cost of salvage therapy of posaconazole oral suspension (800 mg/day) and other SAF treatments were assessed using a multicenter clinical study in patients with IA refractory to or intolerant of conventional antifungal therapy. Data from external controls were collected retrospectively providing a comparative reference group. All patients had failed to improve or progress with prior SAF therapies. Prior SAF treatments for the majority of patients were liposomal amphotericin B, amphotericin B, or itraconazole. Cases of aspergillosis deemed evaluable by a blinded data review committee included 107 posaconazole and 86 control subjects (modified intent-to-treat population). The populations were comparable regarding pre-specified demographic and clinical characteristics. All-cause mortality were analyzed using the survival technique. Economic evaluations were conducted using survival data and costs of pharmacotherapy one year post therapy (2007 Canadian dollars). **RESULTS:** Significantly more posaconazole-treated patients responded to therapy as compared with other SAF therapies. Patients with rIA treated with posaconazole appeared to confer a highly significant survival benefit over the control cases. The cumulative rates of survival at 30 days and at the end of therapy were 74% and 38%, respectively. For controls, those survival rates were 49% and 22%, respectively. The Kaplan-Meier survival curves were significantly different ($P = 0.0003$). In addition, posaconazole appeared to be a cost-saving option for the treatment of rIA compared with the active comparator receiving standard SAF treatments (\$14,839 vs. \$38,158). Sensitivity analyses demonstrated the robustness of the results over a range of alternative values for costs and outcomes. **CONCLUSION:** Treatment with posaconazole compared with other SAF treatments provided a significant survival benefit in patients with rIA at lower cost of drug therapy.

PIN11

COST SAVINGS FROM REDUCED HIV INCIDENCE ESTIMATES

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OBJECTIVE: The "AIDS epidemic update" (2007) published by the United Nations (UN) and World Health Organization (WHO), reports lower estimates of incidences of persons infected with HIV globally. This study evaluates the cost savings of these lower estimates on costs associated with patients being treated by antiretroviral (ARV) drugs and opportunistic infection (OI) prophylaxis. **METHODS:** Estimated differences in incidences of persons infected with HIV for the

eight global regions in years 2006 and 2007 were calculated from UN reports. This difference was then multiplied by the average percentage of patients on ARV and OI treatment. Further, to derive the total cost savings associated with the ARV cohort, the number of patients on ARV medication was multiplied by a weighted average of first and second line ARV drug costs, lab costs, counseling costs, inpatient costs and outpatient costs, for each region. Conversely, only counseling and OI drug costs were included in the total cost of patients receiving OI prophylaxis treatment, for each region. Costs were reported in 2006 US dollars. Sensitivity analysis performed on all key parameters. **RESULTS:** The reduction of incidences of persons infected with HIV from 2006 to 2007 resulted in a total cost savings of \$309.5 million, or 42%. Separately, the patients being treated by ARV drugs attributed a cost savings of \$274.7 million, contrary to patients on OI drugs attributing \$34.8 million to cost savings. The greatest savings were shown in the Sub-Saharan Africa region (\$191.1 million). **CONCLUSION:** Based on the revised estimates, the worldwide savings is a large percentage of the treatment budget. Notwithstanding increased incidence rates in subsequent years, these savings should continue beyond 2007.

PIN12

PHARMACOECONOMIC ANALYSIS BASED ON GUIDELINES FOR TREATING MILD DIABETIC FOOT INFECTIONS: A DECISION TREE MODEL FOR COLOMBIA

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OBJECTIVE: Restricted information exists to guide clinicians in selecting antibiotics for diabetic foot infections in Colombia. Because this serious complication causes substantial morbidity, mortality, and incurs major health care costs, we developed a decision tree model to determine, from the Ministry of Health's perspective, the cost-effectiveness in Colombia of the treatments recommended by the Infectious Diseases Society of America guidelines for mild diabetic foot infections. **METHODS:** A decision-tree model was developed using TreeAge® Pro-2007 and clinical experts. Success probabilities were derived from published randomized controlled trials. Drug costs were obtained from the Farmaprecios Guía de precios sugeridos al público, promedio del mercado para farmacias independientes. No 98 September–October 2007. Thomson PLM. S.A. Bogotá D.C. and amputation and hospitalization costs from ISS 2001/2004 database, with values adjusted to 2007 using the Colombian inflation. One-way and two-way sensitivity analyses were performed to test the robustness of the decision tree model by varying the clinical success rates and costs of antibiotics. Probabilistic sensitivity analyses were also performed using Monte Carlo simulations. **RESULTS:** Clindamycin was cost-effective, dominating all other choices, and cephalexin had the next best profile. Expected success rates were 99.4% for clindamycin, 97.8% for cephalexin, 95.4% for amoxicillin-clavulanate, 95.2% for oxacillin and 95.0% for levofloxacin. The expected cost of clindamycin (\$315,200 pesos (USD\$157.28)) was lower than the next best alternative, cephalexin \$366,560 pesos (USD\$182.14); a cost difference of \$51,360 pesos (USD\$24.86) per patient treated. However, success rates were based on a single small trial for each drug ($n < 30$ for each). In sensitivity analyses, the model/decision was sensitive to changes in efficacy rates and costs within plausible ranges for clindamycin and cephalexin. **CONCLUSION:** Clindamycin was cost-effective in treating mild